

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P199517

Luminaire Tested: **S124-DIP-ULO-LO-40-X-X0048-1D-UDD-1-5-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199517
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P28062 P28062)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124-DIP-ULO-LO-40-X-X0048-1D-UDD-1-5-W
Description: DEFINE 4-INCH DIRECT/INDIRECT PENDANT LED LUMINAIRE
UPLIGHT LLO-4000K, SATIN WHITE DIFFUSER
DOWNLIGHT LLO-4000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3070.6 lumens
Efficiency: N/A
Efficacy: 114.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.14 / 1.28
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4.08' x H: 0.38')
CIE Type: General Diffuse

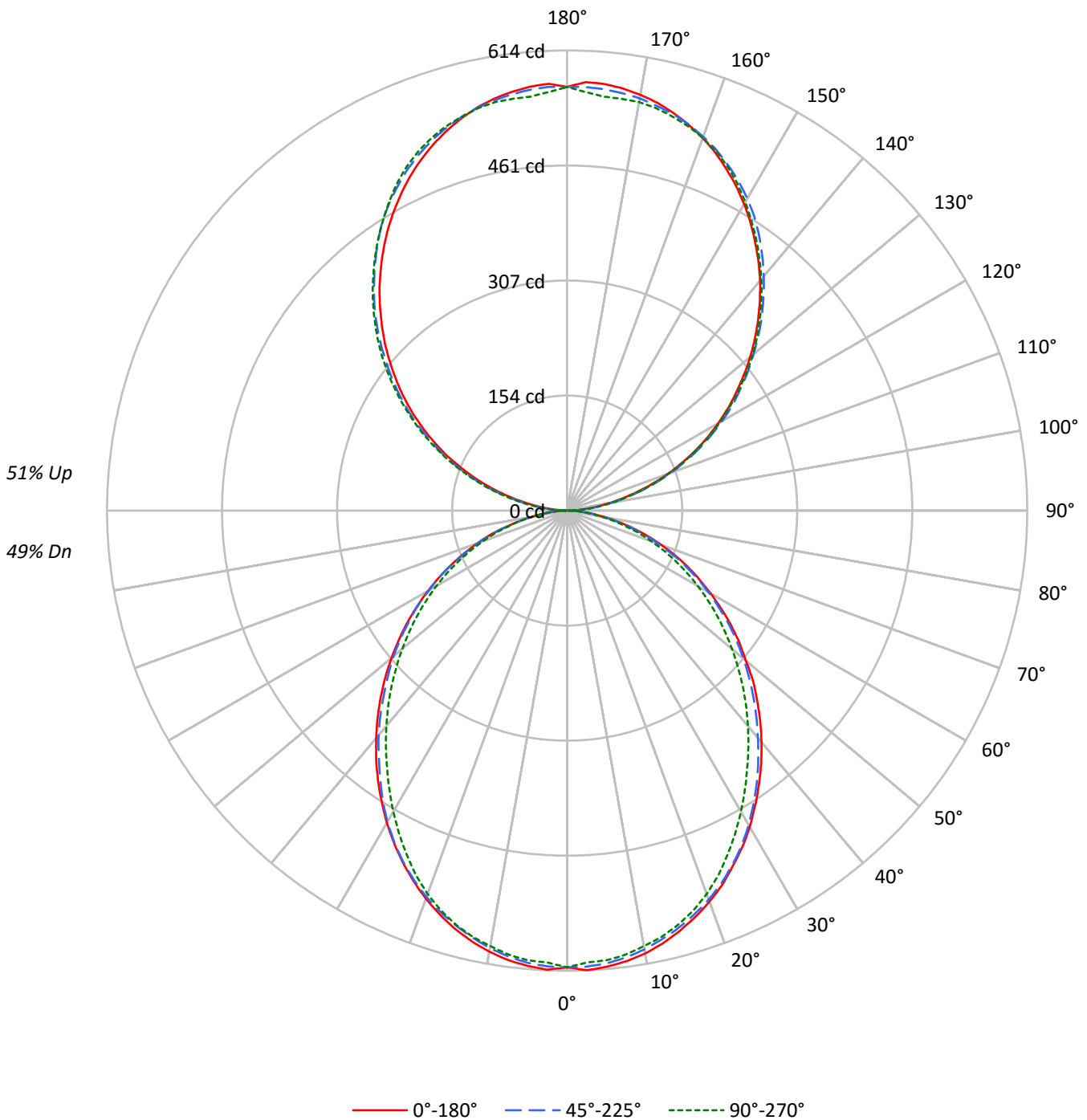
Input Watts (W): 26.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	55	55	55	49
1	98	93	90	86	90	86	83	80	73	70	68	60	59	57	49	48	47	42
2	89	82	76	70	82	75	70	66	64	60	57	53	50	48	43	41	40	35
3	81	72	65	59	75	66	60	55	56	52	48	47	44	41	38	36	34	30
4	74	64	56	50	68	59	52	47	50	45	41	42	38	35	34	32	29	26
5	68	57	49	43	63	53	45	40	45	39	35	38	34	30	31	28	26	22
6	63	51	43	37	58	47	40	35	40	35	31	34	30	27	28	25	23	20
7	58	46	38	32	54	43	36	31	37	31	27	31	27	24	26	23	20	17
8	54	42	34	29	50	39	32	27	34	28	24	28	24	21	24	20	18	16
9	50	38	31	26	46	36	29	24	31	25	22	26	22	19	22	19	16	14
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	20	17	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	4819	4819	4819
5°	4810	4354	4802
10°	4743	3955	4722
15°	4639	3600	4616
20°	4521	3251	4489
25°	4378	2899	4338
30°	4227	2568	4173
35°	4047	2262	3990
40°	3867	1992	3799
45°	3672	1743	3601
50°	3452	1508	3391
55°	3256	1290	3170
60°	3012	1081	2926
65°	2770	877	2661
70°	2463	675	2347
75°	2071	474	1921
80°	1554	289	1455
85°	912	128	863



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.4	1.9
10°-20°	161.7	5.3
20°-30°	236.9	7.7
30°-40°	271.6	8.8
40°-50°	267.7	8.7
50°-60°	230.8	7.5
60°-70°	168.3	5.5
70°-80°	91.8	3.0
80°-90°	24.1	0.8
90°-100°	29.1	0.9
100°-110°	105.4	3.4
110°-120°	186.5	6.1
120°-130°	248.0	8.1
130°-140°	278.9	9.1
140°-150°	274.2	8.9
150°-160°	231.4	7.5
160°-170°	153.5	5.0
170°-180°	53.5	1.7
0°-30°	456.0	14.9
0°-40°	727.6	23.7
0°-60°	1226.1	39.9
0°-90°	1510.2	49.2
90°-120°	321.0	10.5
90°-150°	1122.0	36.5
90°-180°	1560.0	50.8
0°-180°	3070.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	609	609	609	609	609	
5°	611	606	602	606	610	58
15°	581	576	572	573	578	164
25°	523	522	507	517	518	241
35°	446	441	419	435	440	279
45°	358	351	331	345	352	277
55°	267	263	244	257	260	238
65°	177	173	160	169	170	175
75°	91	88	81	84	84	97
85°	21	21	20	20	20	23
90°	1	2	1	2	1	3
95°	24	27	26	25	19	27
105°	98	102	101	99	91	104
115°	188	193	190	187	180	186
125°	276	282	279	275	267	247
135°	360	367	364	361	350	278
145°	437	447	440	440	427	274
155°	503	508	507	503	494	232
165°	549	548	544	544	542	155
175°	571	564	554	564	568	54
180°	565	565	565	565	565	



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CATALOG NUMBER: S124-DIP-ULO-LO-40-X-X0048-1D-UDD-1-5-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	609.4	609.4	609.4	609.4	609.4	609.4	609.4	609.4	609.4
2.5°	613.8	606.8	609.0	607.5	603.5	607.5	608.6	606.4	613.1
5°	610.8	604.2	606.4	604.2	602.4	603.8	605.7	603.1	609.7
7.5°	606.4	599.4	601.3	599.4	597.6	599.1	600.2	597.9	604.9
10°	600.2	592.8	594.6	592.4	590.2	591.7	592.8	590.6	597.6
12.5°	591.3	584.3	585.8	584.3	582.5	582.8	583.6	581.4	588.7
15°	580.6	573.6	576.2	574.7	572.2	573.6	573.3	570.7	577.7
17.5°	568.5	561.8	564.8	563.3	559.6	561.8	561.8	557.8	565.2
20°	555.2	548.2	552.3	548.6	544.5	546.7	548.6	543.8	551.2
22.5°	540.5	533.1	537.9	531.3	526.8	529.4	533.8	528.7	535.3
25°	523.2	517.3	521.7	512.5	506.6	510.3	517.3	512.1	518.4
27.5°	506.2	500.3	504.0	493.7	485.6	490.4	499.2	494.8	500.3
30°	487.4	482.6	484.5	472.3	463.8	469.0	479.3	476.7	481.2
32.5°	466.8	463.1	463.1	450.2	441.4	447.3	458.3	457.6	460.5
35°	446.2	443.9	441.4	427.4	418.9	424.4	435.1	438.1	439.9
37.5°	425.2	423.7	418.9	405.3	397.2	403.1	413.0	417.4	418.5
40°	403.4	402.7	396.1	383.2	375.1	380.9	391.3	396.8	396.4
42.5°	381.3	382.1	373.9	361.4	353.3	359.2	368.8	376.2	374.3
45°	358.5	360.7	351.1	339.7	331.2	337.5	345.2	354.4	351.5
47.5°	336.4	338.9	329.0	317.2	309.1	315.7	323.5	333.4	329.0
50°	311.3	316.5	306.9	295.1	287.0	293.3	302.5	310.9	305.8
52.5°	289.6	293.3	284.8	273.4	265.6	270.8	280.0	288.5	282.9
55°	267.1	271.2	262.7	251.3	243.9	249.1	257.2	265.6	260.1
57.5°	243.5	247.6	239.8	229.5	222.5	228.1	236.5	242.4	237.3
60°	220.7	225.8	217.4	207.4	201.5	205.9	212.6	219.6	214.4
62.5°	198.6	203.4	195.3	186.1	180.5	184.6	191.6	197.1	192.3
65°	177.2	180.2	173.2	164.7	159.9	162.5	168.7	175.0	170.2
67.5°	155.5	158.4	151.4	144.1	139.3	141.8	147.0	152.9	148.5
70°	133.4	135.9	130.1	123.4	119.4	121.9	126.7	131.2	127.1
72.5°	112.4	114.2	108.7	103.5	100.6	102.4	105.7	109.8	107.9
75°	91.0	93.2	87.7	83.3	80.7	81.4	84.0	87.3	84.4
77.5°	70.7	72.9	68.5	65.2	63.7	64.1	65.9	68.5	64.8
80°	51.9	53.8	51.2	48.3	46.8	47.5	48.6	50.1	48.6
82.5°	35.0	36.8	35.0	33.2	32.1	32.8	33.2	33.9	32.8
85°	20.6	22.1	21.0	19.9	19.5	19.5	19.9	20.6	19.5
87.5°	9.2	10.3	9.6	8.8	7.7	8.1	8.5	9.2	8.5
90°	0.7	1.8	1.5	1.1	1.1	1.1	1.5	1.8	0.7
92.5°	11.1	12.5	12.9	11.8	11.8	11.4	10.7	10.3	6.6
95°	24.3	26.5	26.9	26.9	26.2	25.4	24.7	22.8	18.8
97.5°	39.4	42.0	42.7	42.0	42.4	41.6	39.8	37.9	33.9
100°	56.7	60.1	60.8	60.1	60.4	58.6	57.8	56.0	51.2
102.5°	75.9	79.9	80.3	79.6	79.6	78.1	77.4	75.2	70.4
105°	97.6	102.1	102.4	100.9	100.9	99.5	98.7	96.5	91.0
107.5°	119.7	124.2	124.2	122.7	122.7	121.6	120.1	118.6	113.1
110°	142.6	146.3	147.0	145.2	144.8	143.7	142.2	140.0	135.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	165.4	169.1	169.8	167.6	167.3	165.1	164.7	162.1	157.3
115°	188.3	191.9	193.1	190.5	189.7	187.2	187.2	184.6	180.2
117.5°	210.4	214.8	215.9	212.9	212.6	210.4	208.9	206.7	201.9
120°	232.5	238.0	238.7	235.4	235.1	232.5	231.7	228.8	224.0
122.5°	254.6	260.1	261.2	258.3	257.2	253.8	253.5	250.9	245.7
125°	275.6	281.8	281.8	280.4	279.3	276.7	275.2	272.3	267.1
127.5°	297.3	303.9	303.6	302.5	301.4	297.7	296.6	293.6	288.1
130°	318.7	324.6	324.6	323.8	323.1	319.8	317.9	315.0	308.7
132.5°	339.7	345.6	346.3	344.5	343.7	339.3	339.7	336.0	329.7
135°	360.3	365.5	367.3	364.4	364.0	359.2	360.7	355.9	349.6
137.5°	380.6	384.6	387.9	384.3	383.9	379.1	381.3	375.1	369.5
140°	400.5	403.8	408.2	403.8	403.1	398.6	400.8	394.2	389.4
142.5°	419.3	422.2	427.7	422.9	421.8	417.8	420.4	412.6	408.2
145°	437.3	439.5	446.9	441.7	440.3	436.6	439.9	430.3	427.0
147.5°	455.4	456.5	464.9	460.2	457.9	455.0	458.3	447.6	445.1
150°	472.3	472.3	480.8	477.1	475.3	471.9	474.2	463.8	462.0
152.5°	488.2	487.4	495.2	492.9	491.8	488.2	488.9	479.3	478.2
155°	502.9	501.4	508.4	507.3	506.6	502.9	502.9	493.3	493.7
157.5°	516.9	513.9	520.6	520.2	518.7	515.8	515.1	506.6	507.7
160°	529.1	526.5	530.9	530.2	529.1	526.1	526.1	518.7	520.6
162.5°	539.7	536.4	540.1	537.9	537.5	534.2	535.7	529.4	532.0
165°	548.9	545.6	547.5	544.5	544.2	541.2	543.8	539.4	542.3
167.5°	557.1	553.4	553.0	550.4	549.7	547.5	550.4	547.8	551.2
170°	563.3	559.6	558.5	554.1	553.4	551.5	555.9	555.2	558.2
172.5°	568.1	564.4	561.8	556.7	554.1	554.5	560.4	560.4	563.7
175°	571.4	567.4	564.4	559.3	554.5	557.4	563.7	564.1	567.7
177.5°	572.2	568.1	565.5	560.7	558.9	559.3	565.9	565.9	569.9
180°	565.2	565.2	565.2	565.2	565.2	565.2	565.2	565.2	565.2

(END OF REPORT)